

MIXTURE EXPERIMENT DESIGN METHOD AND SYSTEM

ABSTRACT OF THE DISCLOSURE

[0060] An experimental space is determined comprising n factors and a first factor in M number of factor level intervals and in a range of A_{\min} to A_{\max} where A is a proportion of the factor level to total factor levels. An experiment is conducted on the first factor sampled in a range of levels determined according to a relationship $(A_{\min} + (A_{\max} - A_{\min})/(n(M-1)))$ to $(A_{\max} - (A_{\max} - A_{\min})/(n(M-1)))$. A system comprises a reactor for effecting a CHTS method on an experimental space to produce results and a programmed controller for the reactor that defines an experimental space comprising a lattice of points representing increments of reaction factor levels from a minimum level value to a maximum level value according to the relationship $(A_{\min} + (A_{\max} - A_{\min})/(n(M-1)))$ to $(A_{\max} - (A_{\max} - A_{\min})/(n(M-1)))$ where M is a number of intervals for the factor levels of the range, n is a number of mixture components and A is a proportion of the factor level to total factor levels.